Review of the Decision Process

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REVIEW OF THE DECISION PROCESS TO THE DRAFT PREFERRED ALTERNATIVE

In previous mail packets, we described the process to reduce/refine the alternatives and to recommend the draft preferred alternative. Currently, an Interagency Development Team is contributing to this process. The draft preferred alternative will be the alternative that CALFED agencies believe would best fulfill the CALFED Bay-Delta Program's mission, given environmental, technical, and economic considerations.

The process began with 17 alternative variations to meet the Program objectives for the Bay-Delta system. Through a narrowing and evaluation process, a draft preferred alternative will be developed near the end of 1997 for inclusion in the draft programmatic EIR/EIS. Following revisions after public comment, a final preferred alternative will be selected and included in the final EIR/EIS near the end of 1998.

Summary of Decision Process

Information necessary for selection of a draft preferred alternative will come from several ongoing efforts including:

- Impact analysis
- Prefeasibility studies
- Other institutional input (such as ESA consultations, etc.)
- Implementation strategy (assurances plan, financial plan)
- Technical workgroups

As these efforts progress, the amount of information available to make decisions about each of the alternatives will increase and become more refined. Each step in the process may result in changes in some or all of the initial 17 alternatives. It is conceivable that the alternatives evaluated in Step 2 of the process and the eventual draft preferred alternative will differ in some way from the original 17 alternatives. The process is designed to make use of this information as it becomes available and includes two basic steps:

Step 1 - Alternatives Narrowing - The intent of this step is twofold: (1) eliminate or modify those alternatives that have technical problems; and (2) reduce the number of alternatives that achieve the same Delta conveyance function. By looking primarily at engineering/technical feasibility and costs, some conveyance configurations (and associated alternatives) can be eliminated or modified to improve performance.

Step 2 - Detailed Evaluation - The intent of this step is to array information about how well each of the remaining alternatives meets the Program objectives and solution principles, and to array the resultant impacts attributable to each alternative. The alternatives with the higher relative ranking will be compared for overall balance and

inherent tradeoffs using the solution principles. The information will be used by CALFED agencies and stakeholders to compare and contrast the alternatives leading to selection of a draft preferred alternative. As more information becomes available from impact analysis, prefeasibility studies, technical workgroups, etc., efforts outlined in Step 1 will be repeated to determine if additional alternatives should be eliminated or modified.

Step 1 - Alternative Narrowing

The intent of this step was twofold: (1) eliminate or modify those alternatives that have technical problems; and (2) reduce the number of alternatives that achieve the same Delta conveyance function.

The alternatives narrowing is not intended to provide the detailed evaluations necessary to select the draft preferred alternative. This step provides a "coarse" screen for the alternatives which can be eliminated or modified based on the available information. Program solution principles have been applied throughout development of the 17 alternative variations and will also be used in their evaluations. Not enough information will be available for complete evaluation with solution principles until Step 2. However, the evaluation contained in this alternative narrowing step can be considered a "coarse" application of the "implementable" solution principle.

The focus of Step 1 is on the Delta conveyance used with each alternative. Most alternatives have unique conveyance configurations that can be compared and evaluated in this narrowing process. Current recommendations from technical workgroups, modeling results, prefeasiblity studies, preliminary information from impact analysis and other information will be used in the evaluation. The following criteria will be used in the alternative narrowing step:

Identify and eliminate technical problems (technical problems not evident when the alternatives were formulated and which severely limit an alternative's success);

- Identify alternatives with engineering/technical problems which must be resolved for the alternatives to proceed.
- Modify each alternative, if possible, to remove the technical problems.
- If modifications to the alternative can not solve the problem, the alternative is not practicable and will be eliminated.

Reduce the number of alternatives (that achieve the same Delta conveyance function);

- Identify alternatives that meet Program objectives approximately the same and achieve the same Delta conveyance function.
- Use engineering/technical and cost evaluations to compare the Delta conveyance. Consider adverse impacts of each alternative. If the one alternative has significantly higher costs for conveyance and/or greater adverse impacts, it is not

practicable and will be eliminated from further consideration.

- Repeat above analysis with other alternatives.

For the narrowing process, the primary focus was the conveyance options used in each alternative. Most of the alternatives have a unique conveyance configuration that can be compared and evaluated in the narrowing process. Current recommendations from technical work groups, modeling results, prefeasibility studies, preliminary information from impact analysis and other information was used in the evaluation.

Using the above criteria, Program staff evaluated the conveyance options of the seventeen alternatives and concluded that five alternatives could be considered for elimination. These were reviewed with the Policy Group and BDAC at previous meetings. The five alternatives eliminated in the narrowing process were:

- **Alternative 3C** - Pipeline version of a small (5,000 cfs) isolated conveyance facility. The canal version represented in Alternative 3A was judged to provide the same conveyance function at substantially lower cost. The pipeline will be evaluated in a "sidebar" analysis of the EIR/EIS and could be used in place of any of the "small" isolated canals contained in the alternatives .

- **Alternative 3D** - Pipeline version of a small (5,000 cfs) isolated conveyance facility. The canal version represented in Alternative 3B was judged to provide the same conveyance function at substantially lower cost.

- **Alternative 3F** - Chain-of-Lakes conveyance. The alternative was modified to eliminate technical problems. The modified alternative had major environmental impacts. Alternative 3E was judged to provide the same conveyance function at substantially lower cost and lower environmental impacts.

- **Alternative 2C** - Multiple in-Delta intakes. The alternative had technical problems. The multiple intake concept was the same as that included in Alternative 3I. Alternative 2C was not needed as a separate alternative.

- **Alternative 3G** - Ship Channel. More detailed study indicated that the diversion point near Sacramento did not provide the fishery benefits originally anticipated when the alternative was formulated. Alternative 3B was judged to provide the same conveyance function at substantially lower cost.

Step 2 - Detailed Evaluations

In this step we simultaneously considered how well each alternative meets the Program objectives, the resultant beneficial or adverse impacts, and how well each meets the solution principles. This step focuses on the differences between the alternatives while recognizing that

many portions of the alternatives are the same. Key information will be ranked and displayed for each alternative.

Looking simultaneously at all the information on how well the alternatives meet the objectives, impacts, and solution principles would make selection of a preferred alternative very difficult due to the large amount of information. Many portions of the alternatives do not vary from one alternative to another. Therefore the performance of certain aspects of the alternatives will be the same for some Program objectives and impacts. For example, one objective for ecosystem quality is to "**Increase Amount of High Quality Tidal Slough Habitat** to allow increased primary biological production". Each alternative includes the same target of 100 to 150 miles for restoration of tidal slough habitat. Therefore, there is no difference between the alternatives for this objective and no need to focus on the information to help select a draft preferred alternative.

On the other hand, there are aspects that do differ between alternatives and it is these aspects, or distinguishing characteristics, that will be used to select the draft preferred alternative. The distinguishing characteristics between the alternatives are the ones dependent on the storage/conveyance configurations and on the resultant water flows.

Distinguishing Characteristics

Eighteen characteristics have been identified that will be useful in distinguishing how the alternatives differ. The characteristics focus on the major differences in alternatives; differences that will be used in the selection of a draft preferred alternative:

- The 18 characteristics show the major differences between the alternative variations.
- All other parts of the alternatives are important but evaluation of their performance will not help select a draft preferred alternative. However, information on the performance of these other parts will also be available to the decision makers.

The eighteen characteristics have been identified and reviewed with the Policy Group, PCT, and BDAC:

1. In-Delta water quality
2. Export water quality
3. Diversion effects on fisheries
4. Delta flow circulation
5. Storage and release of water
6. Water supply opportunities
7. Water transfer opportunities
8. Operational flexibility
9. South Delta access to water
10. Risk to export water supplies
11. Total cost
12. Assurances difficulty
13. Habitat impacts
14. Land use changes
15. Socio-economic impacts
16. Consistency with solution principles
17. Ability to phase facilities
18. Brackish water habitat

A need for additional (or modification) distinguishing characteristics may become apparent as more detailed information on benefits and adverse impacts is developed. Preliminary evaluation of these against the remaining twelve alternatives is shown in the companion document, *Draft Evaluation Using Distinguishing Characteristics.*

Decsion Matrix and Supporting Framework

Over the next few months, additional (more detailed) information on the eighteen distinguishing characteristics will be displayed at increasing to allow comparison of the alternatives, identify tradeoffs, and to document results of the evaluations. The information will be displayed in a tiered array:

- The decision matrix will show how each alternative performs for each of the eighteen distinguishing characteristics. Information in the decision matrix will be presented as a relative ranking (or other scoring method) for all the alternatives. This will allow agencies and stakeholders to view and compare the alternatives performance for all distinguishing characteristics "at a glance".

- Each distinguishing characteristic has supporting levels of information which provide the documentation and rational for the ranking in the decision matrix.

The supporting structure for the decision matrix includes supporting information for each of the eighteen characteristics. Information for each of the distinguishing characteristics includes a summary page that defines the characteristic and presents a brief explanation on how the alternatives perform. As mentioned above, preliminary evaluation of the distinguishing characteristics is shown in the companion document, *Draft Evaluation Using Distinguishing Characteristics.* **This information should be considered very preliminary in nature as more detailed studies are progressing.**

The decision-makers will be provided with a matrix (decision matrix) containing information on how alternatives perform on key issues (distinguishing characteristics, objectives, impacts, solution principles) of interest and identify tradeoffs between alternatives. The decision matrix will be developed using several supporting matrices containing more detailed information. These supporting matrices will provide a through documentation and summary of how results were derived.

A recommended draft preferred alternative will ultimately be included with the decision matrix. This effort will require simultaneously examining how well alternatives meet the Program objectives, the resultant impacts, costs, assurances, and solution principles in a balanced fashion. Selection of a recommended draft preferred alternative will be based on the collective judgement of CALFED staff and CALFED agencies.

Interagency Development Team

The Interagency Development Team is making important contributions to the Detailed Evaluations in Step 2 of the process. This team consists of CALFED Agency representatives who are working together to develop complete, integrated alternatives leading to a draft preferred alternative(s) for Policy Group deliberation and discussion. The group will use (and contribute to) the information developed for the decision matrix and supporting information. The group will note where alternatives perform especially well or poor and develop the best Alternative 1 (existing Delta conveyance), Alternative 2 (modified through Delta conveyance), and Alternative 3 (dual Delta conveyance that they can. The group, working together with the management team, will recommend a draft preferred alternative from this information.